

## **Fact Sheet Residual Risk Program**

### **What is the Residual Risk Program?**

The Residual Risk Program is the program under which we evaluate the remaining health and environmental risks from hazardous air pollutant emissions (also known as toxic air pollutant emissions). It is the second step in our regulatory program, and one piece of our strategy to protect the public and environment from effects of toxic air pollutant emissions. The Residual Risk Program occurs after we have promulgated the National Emission Standards for Hazardous Air Pollutants required under section 112(d) of the 1990 Amendments to the Clean Air Act, commonly known as Maximum Achievable Control Technology (MACT) Standards.

### **What are the goals of the Residual Risk Program?**

The goals are to provide an ample margin of safety to protect public health and prevent adverse environmental effects. To ensure protection of public health and the environment, the 1990 CAA Amendments include section 112(f), which requires a human health risk- and adverse environmental effects-based “needs test” in the second regulatory phase of the air toxics program. In this phase, referred to as residual risk standard setting, we will consider the need for additional national standards on stationary emission sources following regulation under section 112(d) to protect public health and the environment. Congress directed that such residual risk standards should “provide an ample margin of safety to protect public health.”

Section 112(f) also requires us to determine whether residual risk standards are necessary to prevent adverse environmental effects, taking into consideration “costs, energy, safety, and other relevant factors” in deciding what level is protective. Adverse environmental effect is defined in section 112(a)(7) as “any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.”

### **What is our schedule for promulgating residual risk standards?**

We must evaluate whether there is any remaining risk after each MACT standard is promulgated. If residual risk remains, we must set more stringent standards. The Clean Air Act requires us to set any required standards no later than 8 years (in most cases) after the MACT standard was promulgated. We are now in the process of evaluating residual risk from many industrial source categories. We

published our latest schedule for promulgating MACT standards at 66 FR 8220, and you can find a copy of this notice at <http://www.epa.gov/ttn/atw/socatlst/socatpg.html>.

## **How will we determine residual risk?**

We will assess risk for each category of industrial sources for which a MACT standard has been promulgated. The assessment will cover all sources subject to the MACT standard. Each assessment will follow the basic principles we outlined in our Residual Risk Report to Congress. You'll find a copy of this report at <http://www.epa.gov/ttn/atw/residriskpg.html>.

Our basic framework for assessing risk includes these steps: (1) the exposure assessment, in which we estimate the level of people's exposure to the pollutant sources; (2) the hazard identification step of the effects assessment, in which we assess the type and severity of adverse effects that the pollutant(s) can cause; (3) dose-response assessment step of the effects assessment, in which we assess the adverse effects of a pollutant observed at different levels of exposure and the relationship between exposure and effects; and (4) risk characterization, in which the information from the previous steps is integrated and an overall conclusion about risk is synthesized that is complete, informative, and useful for decision-makers. For each of these steps, there are many potential tools and decisions. The risk assessment process for each MACT source category will use the most appropriate tools and methods for that group of sources, considering data availability and characteristics of the source category. However, each assessment will follow our basic framework, use the identified tools and methodologies, and make conclusions regarding an ample margin of safety and adverse environmental impacts as we have defined them within the Report to Congress. In some cases, the assessment may conclude that the MACT standard does already provide an ample margin of safety and prevent adverse environmental impacts. In others, additional national standards may be required.